GCL
AN ALL CANADIAN COMPANY
Guelph Chemical Laboratories Ltd.
500 York Road, Guelph, Ontario, Canada. N1E 3J4. Tel.(519) 838-2313

REQ. NO. 1-9126

CONTRACT REPORT NO. OSQ81-00190

Mr. T. P. Lim

Department of Energy Mines
& Resources
CANMET, Mining Research
Laboratories
P.O. Box 100
Elliot Lake, Ontario
P5A 2J6

TITLE:

REGIONAL INDIVIDUAL STANDING OFFER FOR CHEMICAL ANALYSES OF MAJOR IONS AND ANIONS FROM URANIUM TAILINGS

Re: Result of Analyses of your Soil
Sulphate for PH

Soil Sample #	PH	Soil Sample #	PH
E 10	4.60	E 50	6.16
E 12	5,66	E 51	5.08
E 17	3.55	E 55	5.90
E 20	6.42	E 56	6.87
E 22	8.54	E 59	6.28
E 27	8.38	E 62	5.20
E 28	7.32	E 63	5.19
E 29	4.31	E 69	3.80
E 33	6.46	E 74	5.50
E 40	4.85	E 95	6.89
E 42	4.95	E 103	6.88
E 43	4.15	E 105	6.84
E 44	5.71	E 107	8.57
E 46	4.20	E 111	4.[illegible]
E 47	5.74	E 112	5.29
E 48	6.16	E 116	4.22

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MICROMEDIA

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Re: Result of Analysis of your soil samples for pH continued.

Sample #	pH	Sample #	pH
F 78	3.60	F103	5.64
F 79	4.85	F104	4.30
F 80	5.60	F106	4.65
F 81	6.35	F107	6.00
F 82	3.46	F108	4.18
F 85	6.40	F109	6.50
F 86	6.10	F110	5.90
F 89	6.50	F111	3.70
F 90	4.82	F112	5.20
F 91	5.68	F113	4.82
F 92	6.80	F114	4.15
F 94	6.93	F115	4.63
F 97	4.33	F116	6.20
F 98	6.30	F117	5.20
F 99	5.65	F118	4.00
F100	6.32	F119	6.23
F101	4.73	F120	5.50
F102	4.33	F121	5.85

Result of Analysis of your soil samples for pH Cont'd

Sample #	pH	Sample #	pH
F122	3.72	F135	3.85
F123	4.00	F136	4.70
F124	3.76	F137	3.63
F125	4.40	F138	4.00
F126	3.97	F140	3.34
F127	3.92	F142	3.92
F129	5.10	F143	5.34
F130	3.83	F144	6.55
F131	3.27	F145	3.65
F132	3.87	F146	5.05
F133	4.33	F147	4.08
F134	4.70	F148	4.72

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Mr. T.P. Lim
Mining Research Laboratories
EMR
Elliott Lake, Ontario

Re: Result of Analysis of Vegetation Samples for (pH, Al, Pb, Ca and Mg)

Table 1

Sample #	pH	Aluminun (mg/100g)	Lead (mg/100g)	Calcium (mg/g)	Magnesium (mg/g)	Carbon (%)	Nitrogen (%)
G1	5.70	4.70	0.25	2.65	1.61	40.49	1.86
G2	5.66	4.40	0.10	1.32	1.53	40.40	1.32
G3	5.67	4.00	0.40	3.42	2.32	39.78	2.32
G4	5.45	2.60	0.40	3.87	1.69	42.61	2.30
G5	5.68	6.00	0.30	16.62	3.70	43.90	5.09
G6	5.67	3.40	0.50	15.87	3.82	44.02	4.89
G7	5.57	3.00	0.50	12.37	2.38	45.00	2.85
G8	5.66	2.30	0.40	3.55	1.26	46.19	1.59
G9	5.60	2.45	0.15	12.12	2.27	45.29	3.03
G10	5.20	1.60	0.70	4.12	1.75	47.19	4.05
G11	5.66	2.90	0.20	1.40	1.50	45.39	1.93
G12	5.78	1.90	0.10	2.07	1.83	42.62	1.48
G13	5.70	3.30	ND*	1.32	1.64	46.90	2.05

*ND = Not detected.

Table 1 Cont'd

Sample #	pH	Aluminun (mg/100g)	Lead (mg/100g)	Calcium (mg/g)	Magnesium (mg/g)	Carbon (%)	Nitrogen (%)
G14	5.78	1.70	0.15	2.27	1.99	44.17	2.66
G15	5.74	1.40	0.15	1.10	1.28	43.65	1.01
G16	5.73	1.30	ND*	0.87	1.15	43.25	1.02
G17	5.75	1.00	ND*	0.90	1.13	41.58	0.94
G18	5.87	2.00	0.35	4.50	2.27	36.75	2.01
G19	5.90	2.10	0.30	4.17	2.05	35.89	1.84
G20	5.45	3.20	0.50	1.97	1.51	40.89	1.57

*ND = Not detected.

Table 2

Result of Analysis of CANMET Samples for (Al, Pb, Ca, and Mg)

Sample No.	Aluminum (ppm)	Lead (ppm)	Calcium (ppm)	Magnesium (ppm)
1	0.73	0.01	8.5	13.00
2	0.46	0.01	21.5	9.50
3	0.52	0.03	14.0	9.20
4	0.44	0.04	192.5	31.30
5	0.20	0.06	28.5	9.80
6	0.52	0.12	68.5	29.38
7	0.38	ND*	41.5	18.48
8	0.64	0.04	7.0	8.70
9	1.70	0.10	25.0	14.70
10	0.60	ND	21.0	13.75
11	0.20	ND	7.5	13.10
12	0.58	ND	24.5	21.00
13	0.82	ND	22.5	12.95
14	To be done	To be done	63.0	34.10
15	-	-	24.5	21.33
16	-	-	7.0	11.20

*ND = Not detected.

Table 3

Result of Analysis of Soil Samples (pH, Ca and Mg)

Sample No.	pH	Calcium (mg/g)	Magnesium (mg/g)
F 01	4.86	0.10	0.57
F 02	6.34	0.45	3.72
F 05	4.07	0.10	0.68
F 06	4.29	3.65	1.36
F 07	4.30	1.90	1.51
F 09	3.82	0.25	0.62
F 10	3.95	0.55	0.86
F 11	6.97	4.15	3.41
F 13	5.64	1.20	1.33
F 14	4.12	2.60	1.33
F 15	4.02	0.10	0.27
F 19	5.80	5.65	3.16
F 20	4.21	0.30	1.07
F 21	4.90	0.25	1.01
F 22	5.74	4.45	4.14
F 23	5.77	3.80	4.55
F 24	5.22	2.05	2.62
F 25	6.40	13.75	5.65
F 27	5.80	0.60	3.35
F 28	3.87	0.90	2.32
F 30	4.43	0.27	1.13
F 31	4.61	0.05	2.56
F 32	4.36	0.37	1.75
F 34	4.02	0.50	1.67
F 35	3.54	<0.05	0.61
F 36	4.17	0.77	1.80
F 39	5.12	1.55	5.15
F 40	4.47	0.27	1.04
F 44	5.74	0.10	1.37
F 45	5.78	0.05	1.28
F 46	5.15	0.20	1.92

Table 3 Cont'd

Sample No.	pH	Calcium (mg/g)	Magnesium (mg/g)
F 48	6.35	0.50	3.51
F 49	4.16	0.05	0.94
F 50	4.22	0.47	1.35
F 52	3.57	<0.05	0.82
F 53	5.95	1.5	5.02
F 54	6.25	2.25	6.87
F 55	4.31	0.37	6.47
F 56	3.73	<0.05	1.43
F 57	3.84	0.05	0.88
F 58	3.63	0.20	0.68
F 59	3.90	0.12	0.68
F 60	4.20	0.90	1.92
F 61	3.95	0.27	0.90
F 62	4.05	0.77	1.99
F 63	3.95	0.82	2.15
F 66	3.71	0.17	0.90
F 69	3.82	<0.05	To be done
F 70	5.20	0.27	-
F 71	2.40	<0.05	-
F 72	3.20	<0.05	-
F 73	4.62	0.67	-
F 74	3.50	<0.05	-
F 75	5.60	2.15	-
F 76	5.27	1.35	-
F 77	3.80	0.10	-

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Re: Result of Analyses of your soil samples for Aluminum.

Sample #	Aluminum (mg/100g)	Sample #	Aluminum (mg/100g)
F 01	2,326	F 25	4,952
F 02	5,698	F 27	4,863
F 05	2,686	F 28	3,955
F 06	4,000	F 30	3,053
F 07	4,980	F 31	4,032
F 09	2,236	F 32	3,080
F 10	3,810	F 34	4,550
F 11	6,200	F 35	2,475
F 13	2,360	F 36	3,986
F 14	4,640	F 39	5,030
F 15	2,266	F 40	3,022
F 19	5,102	F 44	2,650
F 20	2,890	F 45	2,515
F 21	2,760	F 46	3,386
F 22	5,335	F 48	3,995
F 23	6,050	F 49	2,468
F 24	4,995	F 50	3,806

Result of Analyses of your soil samples for Aluminum Cont'd

Sample #	Aluminum (mg/100g)	Sample #	Aluminum (mg/100g)
F 52	2,152	F 91	5,215
F 53	4,888	F 92	5,695
F 54	4,999	F 94	5,275
F 55	6,144	F 97	6,000
F 56	3,408	F 98	5,338
F 57	2,248	F 99	3,675
F 58	2,704	F100	6,558
F 59	2,644	F101	6,475
F 60	3,919	F102	6,255
F 61	3,293	F103	5,432
F 62	4,025	F106	6,481
F 63	4,463	F107	5,404
F 66	3,310	F108	4,734
F 69	2,245	F109	3,262
F 70	3,840	F110	6,026
F 71	2,475	F111	3,043
F 72	2,373	F112	5,837
F 73	5,500	F113	4,304
F 74	2,338	F114	2,694
F 75	5,497	F115	6,074
F 76	5,619	F116	5,172
F 77	2,300	F117	4,015
F 78	3,634	F118	4,139
F 79	5,960	F119	7,243
F 80	6,000	F120	5,053
F 81	4,075	F121	4,771
F 82	5,540	F122	2,540
F 85	2,938	F123	4,423
F 86	4,634	F124	2,458
F 89	4,905	F125	3,779
F 90	5,785	F126	2,410

Result of Analyses of your soil samples for Aluminum Cont'd

Sample #	Aluminum (mg/100g)	Sample #	Aluminum (mg/100g)
F127	2,487	F138	4,881
F129	3,566	F140	3,604
F130	3,022	F142	2,625
F131	3,940	F143	2,988
F132	3,012	F144	4,719
F133	4,435	F145	3,984
F134	3,132	F146	5,856
F135	3,035	F147	4,531
F136	2,787	F148	5,437
F137	3,262		

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Re: Result of Analyses of your soil samples for Aluminum.

Sample #	Aluminum (mg/100g)	Sample #	Aluminum (mg/100g)
E 10	4,125	E 50	1,676
E 12	2,240	E 51	7,470
E 17	2,379	E 55	946
E 20	2,454	E 56	2,020
E 22	5,136	E 59	1,106
E 27	4,606	E 62	3,213
E 28	5,625	E 63	4,817
E 29	5,385	E 69	1,848
E 33	4,217	E 74	5,356
E 40	898	E 95	392
E 42	5,190	E103	11,040
E 43	1,466	E105	720
E 44	3,567	E107	4,516
E 46	2,564	E111	4,134
E 47	6,055	E112	1,620
E 48	5,125	E116	2,650

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RE: Result of Analysis of CANMET Samples (cont'd)

Sample #	Aluminum (p p m)	Lead (p p m)
14	3.46	0.02
15	0.54	0.01
16	89.90	0.02

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Re: Result of Analyses of your samples for Lead.

Sample #	Lead (mg/100g)	Sample #	Lead (mg/100g)
F 01	9.10	F 25	49.50
F 02	0.70	F 27	39.30
F 05	14.40	F 28	31.20
F 06	40.20	F 30	27.45
F 07	47,50	F 31	0.75
F 09	14.60	F 32	21.70
F 10	21.60	F 34	25.50
F 11	58.00	F 35	17.30
F 13	29.00	F 36	32.00
F 14	38.00	F 39	49.60
F 15	13.00	F 44	22.00
F 19	44.90	F 45	20.70
F 20	24.40	F 46	25.50
F 21	15.40	F 48	34.50
F 22	44.20	F 49	13.55
F 23	47.60	F 50	27.10
F 24	43.25	F 52	11.00
		F 40	26.55

Result of Analyses of your samples for Lead Cont'd

Sample #	Lead (mg/100g)	Sample #	Lead (mg/100g)
F 53	40.80	F 91	42.85
F 54	36.10	F 92	42.35
F 55	1.20	F 94	42.35
F 56	25.50	F 97	42.65
F 57	18.25	F 98	46.30
F 58	19.10	F 99	30.85
F 59	17.20	F100	44.40
F 60	31.90	F101	30.85
F 61	32.20	F102	4.00
F 62	28.95	F103	33.25
F 63	49.10	F104	20.05
F 66	30.35	F106	42.40
F 69	14.20	F107	35.20
F 70	33.15	F108	53.00
F 71	12.50	F109	18.15
F 72	15.60	F110	47.15
F 73	43.60	F111	24.45
F 74	18.75	F112	1.30
F 75	45.00	F113	33.40
F 76	8.00	F114	14.55
F 77	20.90	F115	53.40
F 78	36.65	F116	48.50
F 79	47.60	F117	31.25
F 80	34.15	F118	34.75
F 81	33.25	F119	1.55
F 82	4.80	F120	26.75
F 85	30.15	F121	35.95
F 86	43.50	F122	19.90
F 89	46.00	F123	37.70
F 90	28.0	F124	22.75

Result of Analyses of your samples for Lead Cont'd

Sample #	Lead (mg/100g)	Sample #	Lead (mg/100g)
F125	37.60	F137	25.50
F126	17.35	F138	37.15
F127	21.40	F140	27.30
F129	14.90	F142	21.00
F130	27.25	F143	18.00
F131	38.90	F144	41.40
F132	25.85	F145	37.25
F133	45.00	F146	1.88
F134	37.25	F147	56.25
F135	32.50	F148	40.20
F136	27.40		

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Re: Result of Analyses of your samples for Lead.

Sample #	Lead (mg/100g)	Sample #	Lead (mg/100g)
E 10	14.00	F 50	28.00
E 12	6.80	F 51	60.00
E 17	86.00	F 55	1.20
E 20	1.10	F 56	3.60
E 22	7.20	F 59	5.40
E 27	6.20	F 62	1.40
E 28	22.00	F 63	38.00
E 29	37.00	F 69	5.60
E 33	12.00	F 74	4.60
E 40	154.00	F 95	0.40
E 42	46.00	F103	1.00
E 43	N/D	F105	4.60
E 44	24.00	F107	3.80
E 46	18.00	F111	12.20
E 47	2.30	F112	6.50
E 48	4.40	F116	17.80

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Re: Result of Analyses of your soil samples for Lead (Erratum)

Previously reported as sample #	Should read as #	Lead (mg/100g)
F 50	E 50	28.00
F 51	E 51	60.00
F 55	E 55	2.20
F 56	E 56	3.60
F 59	E 59	5.40
F 62	E 62	1.40
F 63	E 63	38.00
F 69	E 69	5.60
F 74	E 74	4.60
F 95	E 95	0.40
F 103	E 103	1.00
F 105	E 105	4.60
F 107	E 107	3.80
F 111	E 111	12.20
F 112	E 112	6.50
F 116	E 116	17.80

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Re: Result of Analyses of your soil samples for Calcium cont'd

Sample #	Calcium (mg/g)	Sample #	Calcium (mg/g)
F 78	0.187	F104	0.23
F 79	0.234	F106	0.23
F 80	1.07	F107	0.26
F 81	0.82	F108	0.40
F 82	0.21	F109	0.23
F 85	0.12	F110	1.03
F 86	1.59	F111	0.09
F 89	0.79	F112	0.09
F 90	0.77	F113	0.51
F 91	1.45	F114	0.09
F 92	1.24	F115	0.84
F 94	1.59	F116	0.75
F 97	0.28	F117	0.35
F 98	1.42	F118	0.42
F 99	0.56	F119	0.19
F 100	1.92	F120	0.61
F 101	0.52	F121	0.68
F 102	0.12	F122	0.09
F 103	0.56	F123	0.51

Result of Analyses of your soil samples for Calcium Cont'd

Sample #	Calcium (mg/g)	Sample #	Calcium (mg/g)
F124	0.12	F136	0.28
F125	0.40	F137	0.56
F126	0.09	F138	1.73
F127	0.09	F140	0.37
F130	0.21	F142	0.13
F131	0.16	F143	0.28
F132	0.14	F144	1.78
F133	1.05	F145	1.54
F134	0.23	F146	0.30
F135	0.28	F147	1.07
F129	0.16	F148	1.03

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Re: Result of Analysis of your soil sample for Calcium

Soil Sample #	Calcium (mg/g)	Soil Sample #	Calcium (mg/g)
E 10	4.63	E 12	0.32
E 17	0.23	E 20	0.66
E 22	15.50	E 27	11.63
E 28	3.32	E 29	0.03
E 33	2.07	E 40	3.98
E 42	8.82	E 43	5.13
E 44	0.35	E 47	0.34
E 48	0.22	E 50	0.49
E 51	6.82	E 55	2.73
E 59	0.61	E 62	0.36
E 63	0.26	E 69	0.29
E 74	0.17	E 95	6.69
E 103	0.19	E 105	3.94
E 107	11.82	E 111	0.26
E 112	0.40	E 116	0.23

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Re: Result of Analyses of your soil samples for Magnesium Cont'd

Sample #	Magnesium (mg/g)	Sample #	Magnesium (mg/g)
F 69	0.56	F 97	2.02
F 70	1.90	F 98	1.48
F 71	0.38	F 99	1.72
F 72	0.36	F100	1.89
F 73	2.94	F101	1.52
F 74	0.08	F102	2.84
F 75	2.14	F103	2.04
F 76	2.84	F104	1.22
F 77	0.43	F106	2.59
F 78	0.66	F107	1.77
F 79	1.89	F108	1.18
F 80	1.86	F109	1.64
F 81	2.83	F110	1.23
F 82	2.18	F111	0.44
F 85	0.71	F112	2.99
F 86	3.62	F113	2.24
F 89	1.48	F114	0.44
F 90	1.58	F115	2.84
F 91	1.20	F116	1.23
F 92	2.27	F117	1.83
F 94	1.83	F118	1.83

Result of Analyses of your soil samples for Magnesium Cont'd

Sample #	Magnesium (mg/g)	Sample #	Magnesium (mg/g)
F119	6.90	F133	1.49
F120	1.92	F134	0.41
F121	3.27	F135	0.46
F122	0.40	F136	0.59
F123	2.12	F137	1.05
F124	0.46	F138	1.85
F125	0.90	F140	0.94
F126	0.56	F142	0.50
F127	0.20	F143	1.14
F129	1.47	F144	2.40
F130	0.47	F145	1.65
F131	0.75	F146	8.33
F132	0.55	F147	1.34
		F148	2.13

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Re: Result of Analysis of your soil sample for Magnesium (Mg).

Sample #	Magnesium (mg/g)	Sample #	Magnesium (mg/g)
E 10	2.80	E 12	2.59
E 17	2.14	E 20	3.39
E 22	15.46	E 27	15.28
E 28	8.42	E 29	1.34
E 33	5.50	E 40	3.28
E 42	5.50	E 43	2.63
E 44	1.19	E 47	4.71
E 48	4.05	E 50	1.90
E 51	3.27	E 55	2.56
E 59	1.36	E 62	2.84
E 63	1.71	E 69	1.13
E 74	2 . 35	E 95	3.39
E 103	3.18	E 105	2.48
E 107	7.41	E 111	1.11
E 112	1.41	E 116	1.02

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Re: Results of Analysis of your soil samples for Potassium

Sample #	Potassium (mg/g)	Sample #	Potassium (mg/g)
F 01	19.36	F 25	40.05
F 02	20.52	F 27	38.02
F 05	23.16	F 28	33.22
F 06	38.86	F 30	30.69
F 07	46.00	F 31	15.79
F 09	26.00	F 32	31.68
F 10	23.38	F 34	34.89
F 11	46.16	F 35	28.31
F 13	32.86	F 36	30.60
F 14	40.38	F 39	34.25
F 19	37.34	F 40	22.13
F 20	29.40	F 44	28.25
F 21	29.44	F 45	28.46
F 22	33.92	F 46	30.23
F 23	40.72	F 48	33.15
F 24	38.93	F 49	24.81

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2 cont'd

Results of Analysis of your soil samples for Potassium

Sample #	Potassium (mg/g)	Sample #	Potassium (mg/g)
F 50	33.15	F 81	19.82
F 52	22.38	F 85	36.79
F 53	32.55	F 86	30.78
F 54	32.12	F 89	36.39
F 55	23.10	F 91	26.99
F 56	28.40	F 92	27.30
F 57	22.78	F 94	27.19
F 58	29.34	F 97	30.88
F 59	26.24	F 98	26.12
F 60	31.16	F 99	23.90
F 61	29.60	F 100	25.90
F 62	30.90	F 101	27.98
F 63	33.66	F 102	15.49
F 69	25.30	F 103	25.00
F 70	25.42	F 104	25.07
F 71	20.93	F 106	36.09
F 72	25.74	F 107	26.35
F 73	38.14	F 108	24.44
F 74	24.20	F 109	20.15
F 75	37.40	F 110	36.53
F 76	38.75	F 111	19.52
F 77	23.70	F 112	14.98
F 79	31.75	F 113	24.30

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(3) cont'd

Results of Analysis of your soil samples for Potassium

Sample #	Potassium (mg/g)	Sample #	Potassium (mg/g)
F 114	19.49	F 116	31.14
F 117	26.13	F 118	22.60
F 120	25.99	F 122	19.53
F 123	25.23	F 124	21.03
F 125	27.64	F 126	20.32
F 127	21.34	F 129	21.02
F 130	24.20	F 131	30.53
F 131	30.53	F 132	23.42
F 133	27.50	F 134	22.79
F 135	26.20	F 136	22.78
F 137	25.07	F 138	26.69
F 140	24.88	F 142	19.30
F 143	18.57	F 144	30.02
F 145	24.23	F 146	14.09
F 147	27.18	F 148	32.63

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Re: Results of Analysis of your soil samples for Potassium

Sample #	Potassium (mg/g)	Sample #	Potassium (mg/g)
E 10	17.25	E 50	2.88
E 12	3.78	E 51	17.96
E 17	10.50	E 55	2.64
E 20	3.12	E 56	3.94
E 22	8.42	E 59	2.50
E 27	7.28	E 62	7.94
E 28	7.30	E 63	24.09
E 29	30.00	E 69	4.68
E 33	9.71	E 74	12.78
E 40	1.34	E 95	12.50
E 42	27.25	E 103	1.58
E 43	3.62	E 105	3.10
E 44	20.50	E 107	5.86
E 46	3.08	E 111	11.79
E 47	14.83	E 112	7.00
E 48	16.09	E 116	15.58

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RE: Results of Analysis of your Vegetation samples for Potassium

Sample #	Potassium mg/g	Sample #	Potassium mg/g
G 1	21.05	G 11	10.93
G 2	15.48	G 12	16.55
G 3	23.75	G 13	11.22
G 4	27.93	G 14	16.54
G 5	20.81	G 15	14.03
G 6	23.00	G 16	11.75
G 7	16.15	G 17	12.55
G 8	15.43	G 18	16.33
G 9	16.24	G 19	13.59
G 10	14.69	G 20	3.29

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Re: Result of Analyses of your soil samples for Iron.

Sample #	Iron (mg/g)	Sample #	Iron (mg/g)
F 1	37.0	F27	39.0
F 2	27.5	F28	26.0
F 5	26.0	F30	32.5
F 6	43.5	F31	5.0
F 7	42.0	F32	37.0
F 9	58.0	F34	37.0
F10	34.0	F35	43.5
F11	37.0	F36	38.5
F13	45.0	F39	41.3
F14	45.0	F40	32.5
F15	34.5	F44	35.5
F19	38.0	F45	34.8
F20	33.5	F46	37.0
F21	29.0	F48	39.8
F22	39.0	F49	35.5
F23	50.0	F50	26.8
F24	36.0	F52	46.5
F25	22.5	F53	44.0

Result of Analyses of your soil samples for Iron Cont'd

Sample #	Iron (mg/g)	Sample #	Iron (mg/g)
F 54	45.0	F 91	46.0
F 55	18.0	F 92	46.5
F 56	39.5	F 94	45.0
F 57	29.0	F 97	37.0
F 58	32.5	F 98	45.5
F 59	32.5	F 99	37.0
F 60	24.5	F100	51.0
F 61	32.8	F101	37.0
F 62	39.5	F102	37.0
F 63	39.5	F103	42.5
F 66	36.3	F104	50.0
F 69	50.0	F106	44.0
F 70	9.3	F107	38.5
F 71	54.0	F108	39.5
F 72	53.0	F109	35.0
F 73	38.5	F110	46.0
F 74	46.5	F111	43.5
F 75	49.0	F112	16.8
F 76	38.5	F113	41.5
F 77	37.0	F114	30.0
F 78	36.5	F115	47.5
F 79	40.5	F116	45.5
F 80	37.0	F117	36.0
F 81	32.5	F118	24.8
F 82	42.5	F119	42.5
F 85	34.0	F120	33.3
F 86	40.0	F121	34.3
F 89	42.5	F122	28.0
F 90	39.5	F123	40.5

Result of Analyses of your soil samples for Iron cont'd

Sample #	Iron (mg/g)	Sample #	Iron (mg/g)
F124	37.5	F136	28.5
F125	6.3	F137	32.8
F126	44.3	F138	42.3
F127	35.0	F140	29.5
F129	30.5	F142	34.3
F130	31.8	F143	32.8
F131	12.0	F144	34.3
F132	24.5	F145	39.5
F133	30.5	F146	38.0
F134	28.0	F147	34.3
F135	31.5	F148	37.3

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Re: Result of Analyses of your vegetation samples for Iron.

Sample #	Iron (mg/g)	Sample #	Iron (mg/g)
G 01	0.05	G 11	0.10
G 02	42.5	G 12	0.25
G 03	0.05	G 13	0.40
G 04	0.05	G 14	0.2
G 05	7.2	G 15	0.45
G 06	1.8	G 16	0.55
G 07	0.15	G 17	0.2
G 08	0.15	G 18	0.45
G 09	0.10	G 19	0.2
G 10	0.2	G 20	0.25

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Re: Result of Analyses of your CANMET samples for Iron.

Sample No.	PPM	Sample No.	PPM.
1	1.0	9	0.8
2	1.0	10	1.0
3	1.0	11	<0.8
4	1.0	12	1.0
5	0.8	13	<0.8
6	1.0	14	1.0
7	0.8	15	1.0
8	0.8	16	3.0

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Re: Result of Analysis of your soil sample for Iron (Fe)

Soil Sample #	Iron (mg/g)	Soil Sample #	Iron (mg/g)
E 10	22.32	E 12	4.10
E 17	41.34	E 20	4.54
E 22	117.8	E 27	103.6
E 28	68.5	E 29	38.75
E 33	19.38	E 40	9.93
E 42	34.72	E 43	13.13
E 44	25.0	E 47	15.3
E 48	18.78	E 50	2.32
E 51	33.07	E 55	4.07
E 59	4.15	E 62	12.69
E 63	30.63	E 69	2.87
E 74	7.50	E 95	2.15
E 103	14.38	E 105	2.38
E 107	65.50	E 111	23.63
E 112	18.13	E 116	29.63

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Re: Result of Analyses of your soil samples for Soluble Sulphate

Soil Sample #	Soluble Sulphate (mg/g)	Soil Sample #	Soluble Sulphate (mg/g)
F 01	10.20	F 48	42.76
F 02	0.44	F 49	11.57
F 05	6.47	F 50	35.96
F 06	62.05	F 52	11.00
F 07	50.70	F 53	59.78
F 09	11.15	F 54	80.20
F 10	23.48	F 55	1.76
F 11	74.52	F 56	14.41
F 13	38.23	F 57	13.27
F 14	58.98	F 58	25.18
F 15	3.74	F 59	17.81
F 19	90.41	F 60	49.57
F 20	16.89	F 61	31.42
F 21	9.07	F 62	49.57
F 22	74.28	F 63	58.64
F 23	76.79	F 66	21.78
F 24	54.11	F 69	7.60
F 25	106.28	F 70	16.11

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(2)
Soil Determination (cont'd)

Soil Sample #	Soluble Sulphate (mg/g)	Soil Sample #	Souble Sulphate (mg/g)
F 27	47.30	F 71	28.02
F 28	49.41	F 72	9.30
F 30	25.02	F 73	54.11
F 31	1.93	F 74	8.73
F 32	33.69	F 75	10.29
F 34	40.50	F 76	8.81
F 35	4.65	F 77	18.37
F 36	46.17	F 78	37.09
F 39	67.72	F 79	38.23
F 40	24.61	F 80	65.45
F 44	16.11	F 81	63.18
F 45	13.84	F 82	23.48
F 46	29.15	F 85	2.38
F 86	91.54	F 123	59.78
F 89	7.45	F 124	20.08
F 90	49.57	F 125	40.50
F 91	7.23	F 126	6.24
F 92	65.45	F 127	12.14
F 94	6.89	F 129	12.14
F 97	29.72	F 130	22.35
F 98	76.80	F 131	16.67
F 99	45.03	F 132	20.08

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Soil Determination (cont'd)

Soil Sample #	Souble Sulphate (mg/g)	Soil Sample #	Souble Sulphate (mg/g)
F 100	10.06	F 133	55.24
F 101	51.84	F 134	24.61
F 102	3.40	E 135	24.05
F 103	57.51	F 136	19.51
F 104	24.61	F 137	3.82
F 106	32.56	F 138	65.45
F 107	31.42	F 140	31.42
F 108	46.17	F 142	14.97
F 109	30.29	F 143	20.08
F 110	76.79	F 144	55.24
F 111	19.51	F 145	54.11
F 112	0.52	F 146	2.09
F 113	56.38	F 147	47.30
F 114	23.48	F 148	45.03
F 115	85.87		
F 116	69.99		
F 117	47.30		
F 118	47.30		
F 119	0.28		
F 120	58.64		
F 121	60.91		
F 122	16.67		

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Re: Result of Analyses of your Vegetation samples for Souble Sulphate

Sample #	Soluble Sulphate (mg/g)	Sample #	Soluble Sulphate (mg/g)
G 01	1.11	G 11	1.81
G 02	1.29	G 12	0.11
G 03	3.33	G 13	0.18
G 04	3.90	G 14	0.79
G 05	5.26	G 15	0.12
G 06	6.51	G 16	0.12
G 07	0.31	G 17	0.18
G 08	0.57	G 18	6.74
G 09	4.13	G 19	6.06
G 10	3.11	G 20	0.08

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Re: Result of Analyses of your soil sample for souble Sulphate.

Soil Sample #	Sulphate (mg/g)	Soil Sample #	Sulphate (mg/g)
E 10	5.86	E 12	0.37
E 17	28.02	E 20	2.27
E 22	6.97	E 27	6.88
E 28	4.39	E 29	2.84
E 33	9.87	E 40	2.27
E 42	9.60	E 43	14.41
E 44	17.24	E 46	2.50
E 47	0.43	E 48	1.13
E 50	0.76	E 51	6.54
E 55	0.87	E 56	0.91
E 59	2.72	E 62	3.31
E 63	24.61	E 69	N E S
E 74	0.50	E 95	2.80
E 103	0.27	E 105	3.29

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(2) cont'd

Re: Result of Analyses of your soil sample for souble Sulphate

Soil Sample #	Sulphate (mg/g)	Soil Sample #	Sulphate (mg/g)
E 107	N E S	E 111	14.41
E 112	9.87	E 116	20.08

*There was not any sample left, consequently, the analysis could not be performed.

N E S = Not enough sample.

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Re: Result of Analyses of your soil samples for total sulphate.

Sample #	Total Sulphate (mg/g)	Sample #	Total Sulphate (mg/g)
F 01	87.35	F 30	72.37
F 02	2.22	F 31	0.44
F 05	54.83	F 32	89.59
F 06	104.57	F 34	87.68
F 07	91.18	F 35	75.24
F 09	135.18	F 36	72.37
F 10	81.61	F 39	74.28
F 11	106.48	F 40	61.85
F 13	98.83	F 44	60.89
F 14	104.57	F 45	62.81
F 15	68.22	F 46	64.72
F 19	98.83	F 48	82.89
F 20	63.44	F 49	59.94
F 21	54.83	F 50	46.54
F 22	98.83	F 52	74.28
F 23	93.09	F 53	75.24
F 24	78.11	F 54	84.81
F 25	109.68	F 55	0
F 27	60.89	F 56	54.20
F 28	64.72	F 57	60.89

Result of Analysis of your soil samples for total sulphate

Sample #	Total Sulphate (mg/g)	Sample #	Total Sulphate (mg/g)
F 58	63.76	F 73	58.98
F 59	67.59	F 74	78.11
F 60	57.07	F 75	78.11
F 61	61.85	F 76	71.41
F 62	78.11	F 77	74.28
F 63	76.20	F 78	68.54
F 66	70.46	F 79	42.72
F 69	136.46	F 80	43.68
F 70	17.85	F 81	47.50
F 71	119.24	F 82	9.24
F 72	104.89	F 85	57.07

Result of Analyses of your soil samples for Total Sulphate cont'd

Sample #	Total Sulphate (mg/g)	Sample #	Total Sulphate (mg/g)
F 86	107.35	F121	94.42
F 89	84.73	F122	69.66
F 90	67.50	F123	104.12
F 91	70.73	F124	99.81
F 92	82.58	F125	42.73
F 94	68.58	F126	118.12
F 97	48.12	F127	64.27
F 98	83.66	F129	42.19
F 99	82.58	F130	62.12
F100	94.42	F131	23.35
F101	81.50	F132	50.27
F102	14.73	F133	59.96
F103	75.04	F134	66.42
F104	59.96	F135	77.19
F106	40.58	F136	62.12
F107	55.66	F137	77.19
F108	49.19	F138	93.35
F109	64.27	F140	66.42
F110	107.35	F142	76.12
F111	95.50	F143	59.96
F112	0.56	F144	82.58
F113	94.42	F145	73.96
F114	81.50	F146	2.02
F115	105.19	F147	56.73
F116	100.89	F148	42.73
F117	98.73		
F118	65.35		
F119	1.65		
F120	81.50		

Result of Analysis of your soil samples for total Sulphate Cont'd

Sample #	Total Sulphate (mg/g)	Sample #	Total Sulphate (mg/g)
G 01	2.52	G 11	3.56
G 02	4.67	G 12	0.06
G 03	8.98	G 13	0.38
G 04	8.55	G 14	0.07
G 05	14.58	G 15	0.24
G 06	12.94	G 16	0.26
G 07	0.51	G 17	0.15
G 08	0.62	G 18	11.60
G 09	7.01	G 19	9.50
G 10	4.14	G 20	2.61

Result of Analyses of your CANMET samples for total sulphate

Sample #	Total Sulphate (ppm)	Sample #	Total Sulphate (ppm)
1	1.15	9	6.89
2	108.28	10	6.89
3	8.8	11	3.06
4	73.84	12	54.71
5	6.89	13	43.23
6	41.32	14	66.34
7	43.23	15	25.42
8	8.03	16	16.80

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Re: Results of Analysis of your soil samples for Total Sulphate

Sample #	Sulphate (mg/g)	Sample #	Sulphate (mg/g)
E 10	51.35	E 50	6.64
E 12	4.04	E 51	62.12
E 17	42.73	E 55	6.20
E 20	7.72	E 56	3.94
E 22	61.74	E 59	4.16
E 27	63.92	E 62	4.07
E 28	30.87	E 63	44.89
E 29	49.19	E 69	5.34
E 33	16.35	E 74	1.34
E 40	6.64	E 95	9.22
E 42	98.73	E 103	0.62
E 43	23.00	E 105	6.42
E 44	44.87	E 107	15.46
E 46	7.50	E 111	27.66
E 47	0.61	E 112	13.66
E 48	15.27	E 116	39.50

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CANMET, Mining Research
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Elliot Lake, Ontario
P5A 2J6.

RE: Result of Analyses of your sample for Total Silica as SiO_2

Sample No.	Silica as SiO_2 (mg/g)
F31	607.2
F34	689.0
F56	708.6
F60	648.0
F61	689.0
F66	709.0
F77	689.3
F80	486.0
F82	668.6
F90	527.0
F115	446.5
F119	527.0
F121	567.0
F125	689.0
F127	689.2

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(2) cont'd

Result of Analyses of your sample for Total Silica as SiO_2

Sample No.	Silica as SiO_2 (mg/g)
F131	729.0
F134	729.0
F135	689.5
F137	689.0
F142	689.0

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Re: Result of Analyses of your soil samples for silica as SiO_2 (Acid Extracted)

Sample #	Silica as SiO2 (mg/g)	Sample #	Silica as SiO_2 (mg/g)
F 31	0.51	F 115	3.55
F 34	2.03	F 119	7.60
F 56	1.53	F 121	3.55
F 60	1.53	F 125	0.51
F 61	1.53	F 127	0.51
F 66	2.03	F 131	0.51
F 77	2.53	F 134	0.25
F 80	2.53	F 135	0.25
F 82	2.03	F 137	2.03
F 90	1.03	F 142	0.51

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Re: Result of Analyses of your samples for Silica as SiO_2 fused with Sodium Bicarbonate

Sample #	Silica as SiO_2 (mg/g)	Sample #	Silica as SiO_2 (mg/g)
F 31	14.00	F 34	18.50
F 56	28.50	F 60	23.00
F 61	18.50	F 66	20.50
F 77	19.00	F 80	22.00
F 82	21.00	F 90	53.50
F 115	29.00	F 119	31.00
F 121	26.50	F 125	31.50
F 127	23.00	F 131	19.00
F 134	20.50	F 135	24.00
F 137	24.00	F 142	14.00

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Re: Result of Analysis of your samples
by Neutron Activation Method.

Sample #	Uranium (ppm)	Sample #	Uranium (ppm)
F 1	30.3	F 30	68.8
F 2	01.8	F 31	04.1
F 5	56.6	F 32	49.5
F 6	104.0	F 34	43.2
F 7	129.0	F 35	85.5
F 9	64.6	F 36	69.3
F 10	68.4	F 39	111.0
F 11	176.0	F 40	70.2
F 13	60.5	F 44	87.6
F 14	67.9	F 45	89.9
F 15	57.2	F 46	56.8
F 19	85.2	F 48	60.1
F 20	83.0	F 49	65.2
F 21	29.5	F 50	84.7
F 22	88.1	F 52	37.7
F 23	102.0	F 53	84.1
F 24	248.0	F 54	79.3
F 25	148.0	F 55	02.6
F 27	118.0	F 56	70.8
F 28	68.2	F 57	36.6

Result of Analysis of your Samples by Neutron Activation Method

Sample #	Uranium (ppm)	Sample #	Uranium (ppm)
F 58	66.0	F 99	79.4
F 59	53.8	F 100	104.0
F 60	57.6	F 101	109.0
F 61	97.9	F 102	21.5
F 62	57.0	F 103	73.6
F 63	205.0	F 104	44.9
F 66	125.0	F 106	131.0
F 69	55.7	F 107	93.8
F 70	19.7	F 108	262.0
F 71	40.7	F 109	71.2
F 72	57.1	F 110	135.0
F 73	269.0	F 111	69.5
F 74	93.7	F 112	3.3
F 75	103.0	F 113	69.8
F 76	257.0	F 114	82.3
F 77	102.0	F 115	120.0
F 78	78.1	F 116	77.6
F 79	1180.0	F 117	59.3
F 80	98.7	F 118	70.0
F 81	131.0	F 119	4.0
F 82	73.1	F 120	123.0
F 85	10.5	F 121	74.3
F 86	87.4	F 122	35.6
F 89	97.1	F 123	70.4
F 90	105.0	F 124	98.3
F 91	106.0	F 125	17.9
F 92	74.4	F 126	64.6
F 94	86.8	F 127	66.4
F 97	137.0	F 129	39.7
F 98	78.8	F 130	76.5

Result of Analysis of your samples by Neutron Activation Method

Sample #	Uranium (ppm)	Sample #	Uranium (ppm)
F 131	18.9	G 1	<0.2
F 132	64.1	G 2	<0.2
F 133	88.7	G 3	<0.2
F 134	67.0	G 4	<0.2
F 135	76.4	G 5	<0.2
F 136	65.1	G 6	<0.2
F 137	46.4	G 7	<0.2
F 138	71.3	G 8	<0.2
F 140	73.8	G 9	<0.2
F 142	65.3	G 10	<0.2
F 143	45.6	G 11	0.3
F 144	213.0	G 12	<0.2
F 145	88.1	G 13	<0.2
F 146	4.3	G 14	<0.2
F 147	263.0	G 15	<0.2
F 148	153.0	G 16	<0.2
		G 17	<0.2
		G 18	<0.2
		G 19	<0.2
		G 20	<0.2

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Re: Result of Analysis of your samples by Neutron Activation Method

Sample #	Thorium (ppm)	Sample #	Thorium (ppm)
F 01	10.0	F 30	190.0
F 02	33.0	F 31	12.0
F 05	75.0	F 32	180.0
F 06	540.0	F 34	210.0
F 07	560.0	F 35	51.0
F 09	67.0	F 36	330.0
F 10	140.0	F 39	460.0
F 11	630.0	F 40	200.0
F 13	240.0	F 44	130.0
F 14	360.0	F 45	150.0
F 15	82.0	F 46	150.0
F 19	490.0	F 48	320.0
F 20	110.0	F 49	43.0
F 21	67.0	F 50	260.0
F 22	570.0	F 52	48.0
F 23	700.0	F 53	430.0
F 24	490.0	F 54	540.0
F 25	590.0	F 55	9.0
F 27	440.0	F 56	280.0
F 28	290.0	F 57	60.0

Result of Analysis of your samples by Neutron Activation method

Sample #	Thorium (ppm)	Sample #	Thorium (ppm)
F 58	200.0	F 99	300.0
F 59	140.0	F 100	710.0
F 60	520.0	F 101	300.0
F 61	200.0	F 102	33.0
F 62	290.0	F 103	440.0
F 63	380.0	F 104	180.0
F 66	130.0	F 106	540.0
F 69	71.0	F 107	420.0
F 70	30.0	F 108	340.0
F 71	38.0	F 109	150.0
F 73	550.0	F 110	460.0
F 74	52.0	F 111	130.0
F 75	670.0	F 112	8.0
F 76	660.0	F 113	290.0
F 77	120.0	F 114	69.0
F 78	240.0	F 115	490.0
F 79	590.0	F 116	500.0
F 80	380.0	F 117	330.0
F 81	580.0	F 118	320.0
F 82	150.0	F 119	22.0
F 85	39.0	F 120	290.0
F 86	570.0	F 121	430.0
F 89	550.0	F 122	69.0
F 90	290.0	F 123	440.0
F 91	530.0	F 124	110.0
F 92	520.0	F 125	20.0
F 94	520.0	F 126	81.0
F 97	450.0	F 127	110.0
F 98	450.0	F 129	130.0

Result of Analysis of your samples by Neutron Activation method

Sample #	Thorium (ppm)	Sample #	Thorium (ppm)
F 130	94.0	G 1	<2.0
F 131	33.0	G 2	<2.0
F 132	69.0	G 3	<2.0
F 133	350.0	G 4	<2.0
F 134	180.0	G 5	<2.0
F 135	96.0	G 6	<2.0
F 136	170.0	G 7	<2.0
F 137	220.0	G 8	<2.0
F 138	420.0	G 9	<2.0
F 140	450.0	G 10	<2.0
F 142	130.0	G 11	<2.0
F 143	140.0	G 12	<2.0
F 144	430.0	G 13	<2.0
F 145	450.0	G 14	<2.0
F 146	15.0	G 15	<2.0
F 147	340.0	G 16	<2.0
F 148	430.0	G 17	<2.0
		G 18	<2.0
		G 19	<2.0
		G 20	<2.0

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COMMUNICATION

Previous results on Mg were reported with trivalent Lanthanum added. These results have been verified to be correct.

That addition of La has dramatic effect Ca is indicated in the following tables.

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Re: Result of Analyses of your CANMET samples for Ca with trivalent Lanthanum added

Sample #	Canmet (ppm)	Sample #	Canmet (ppm)
1	30.00	9	56.80
2	50.00	10	57.50
3	26.00	11	27.50
4	297.00	12	76.50
5	71.50	13	53.50
6	172.50	14	253.50
7	108.00	15	57.50
8	21.80	16	19.00

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Re: Result of Analysis of your vegetation sample for Calcium with Trivalent Lanthanum added.

Sample #	Calcium (mg/g)	Sample #	Calcium (mg/g)
G-1	4.30	G-11	2.28
G-2	3.10	G-12	4.20
G-3	6.50	G-13	3.08
G-4	6.85	G-14	4.40
G-5	23.35	G-15	2.00
G-6	16.85	G-16	1.50
G-7	13.85	G-17	1.73
G-8	6.75	G-18	9.35
G-9	16.30	G-19	10.25
G-10	7.25	G-20	3.70

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Mr. T.P. Lim
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Re: Result of Analysis of your soil sample for Calcium with Trivalent Lanthanum added.

Sample #	Calcium (mg/g)	Sample #	Calcium (mg/g)
E-10	43.0	E-50	17.45
E-12	10.45	E-51	51.50
E-17	11.33	E-55	22.00
E-20	8.85	E-56	10.90
E-22	83.80	E-59	11.15
E-27	65.20	E-62	15.00
E-28	38.80	E-63	16.68
E-29	3.60	E-69	9.60
E-33	25.00	E-74	17.00
E-40	18.20	E-95	33.20
E-42	59.40	E-103	13.10
E-44	16.00	E-105	30.20
E-46	23.75	E-107	98.00
E-47	17.95	E-111	11.03
E-48	13.50	E-112	13.95
E-43	28.50	E-116	11.70

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Mr. T.P. Lim
Department of Energy Mines
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Re: Result of Analysis of your soil sample for Calcium
with Trivalent Lanthanum added.

Sample #	Calcium (mg/g)	Sample #	Calcium (mg/g)
F 01	7.90	F 02	16.00
F 05	5.15	F 06	44.30
F 07	34.90	F 09	6.35
F 10	17.25	F 11	52.40
F 13	22.70	F 14	41.80
F 15	4.70	F 19	67.50
F 20	9.55	F 21	14.30
F 22	54.00	F 23	49.50
F 24	37.75	F 25	73.75
F 27	24.50	F 28	34.50
F 30	14.65	F 31	7.80
F 32	17.10	F 34	22.05
F 35	4.63	F 36	27.25
F 39	48.75	F 40	15.15
F 44	9.73	F 45	10.18

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Re: Results of Analysis of your soil sample for Calcium cont'd
with Trivalent Lanthanum added.

Sample #	Calcium (mg/g)	Sample #	Calcium (mg/g)
F 46	17.33	F 48	25.00
F 49	6.23	F 50	21.58
F 52	5.53	F 53	38.00
F 54	57.75	F 55	17.05
F 56	6.70	F 57	9.60
F 58	13.43	F 59	10.30
F 60	35.30	F 61	15.43
F 62	34.00	F 63	40.00
F 66	10.80	F 69	4.65
F 70	13.65	F 71	4.43
F 72	6.03	F 73	40.25
F 74	4.50	F 75	71.50
F 76	61.40	F 77	8.85
F 78	20.50	F 79	23.53
F 80	42.60	F 81	45.50
F 82	16.95	F 85	14.25
F 86	66.40	F 89	53.20

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Re: Result of Analysis of your soil sample for calcium cont'd
with Trivalent Lanthanum added.

Sample #	Calcium (mg/g)	Sample #	Calcium (mg/g)
F 90	41.60	F 91	58.50
F 92	50.60	F 94	57.60
F 97	22.20	F 98	56.50
F 99	33.50	F 100	73.20
F 101	43.70	F 102	12.00
F 103	46.40	F 104	22.85
F 106	22.00	F 107	29.25
F 108	36.00	F 109	19.20
F 110	60.40	F 111	10.75
F 112	12.20	F 113	42.00
F 114	14.50	F 115	55.00
F 116	53.20	F 117	33.80
F 118	34.20	F 119	18.85
F 120	45.15	F 121	19.60

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Re: Result of Analysis of your soil samples for Calcium cont'd with Trivalent Lanthanum added.

Sample #	Calcium (mg/g)	Sample #	Calcium (mg/g)
F 122	9.80	F 123	33.40
F 124	10.50	F 125	24.25
F 126	7.30	F 127	7.35
F 129	12.05	F 130	65.60
F 131	11.05	F 132	13.43
F 133	39.40	F 134	13.65
F 135	14.25	F 136	14.25
F 137	21.40	F 138	58.00
F 140	21.15	F 142	7.95
F 143	12.90	F 144	45.80
F 146	16.55	F 147	33.95
F 148	43.00	F 145	44.80